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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/786,206

02/25/2004

John M. Sebastian

59541US002

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05/08/2006

3M INNOVATIVE PROPERTIES COMPANY

PO BOX 33427

ST. PAUL, MN 55133-3427

EXAMINER

DESAI, ANISH P

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/786,206	SEBASTIAN ET AL.	
	Examiner	Art Unit	
	Anish Desai	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7 and 10-30 is/are pending in the application.
- 4a) Of the above claim(s) 23-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7, 10-22, and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The applicant's arguments in response to the Office action dated 12/02/05 have been fully considered and are persuasive.

1. The art rejections over Koubek et al. (US 5,532,300) as evidenced by Mallya et al. (US 6,489,387B2) are withdrawn in view of the present amendments and response (see pages 3-12 of 02/17/06 amendments). The reference of Mallaya et al. (US 6,489,387B2) relied upon, as evidence is moot in view of the present amendments.
2. The art rejections over Xie et al. (US 6,503,620B1) as evidenced by Mallya et al. (US 6,489,387B2) are withdrawn. The reference of Mallaya et al. (US 6,489,387B2) relied upon, as evidence is moot in view of the present amendments.
3. The art rejections over Koubek et al. (US 5,532,300) in view of Temperante et al. (US 5,804,625) are withdrawn because the reference of Mallaya et al. (US 6,489,387B2) relied upon as evidence is moot in view of the present amendments. However upon further consideration a new ground of rejection is made over Koubek et al. (US 5,532,300) in view of Riswick et al. (US 5,804,519).

Election/Restrictions

4. The applicant's response received on 02/17/06 in response to 12/02/05 Office action does not include the affirmation of election of claims 1-22. In response to this Office action, the applicant is required to indicate the affirmation of election of claims 1-22.

Claim Objections

5. Claim 21 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 21 recite, "The hydrophilic article...thermoplastic polymer layer is initially hydrophobic". The claim 21 depends on claim 1 which already incorporates the limitation of "thermoplastic polymer layer" being "initially hydrophobic". Further, the claim 21 lacks a period at the end of the sentence.

6. Claims 13 and 21 are objected to because of the following informalities: Claims 13 and 21 lack a period at the end of the sentence in each claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claim 1, the recitation "A hydrophilic article...surfactants that migrates to said first surface of said polymeric layer", it is not clear whether in the FINAL product the surfactant is present in the adhesive layer or not. The said recitation seems to indicate only the transient/intermediate situation (i.e. migration of surfactant from an adhesive layer to a thermoplastic polymer layer). For

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the purpose of the examination, the examiner is interpreting the claim 1 as any reference teaching a thermoplastic polymer layer with an adhesive bonded to one surface of the thermoplastic layer wherein a nonionic fluorochemical surfactant is on the first surface of the thermoplastic polymer layer will read on the claim 1. It is suggested that the applicant indicate in the claim the location of the surfactant in the FINAL product.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 11, and 12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Riswick et al. (US 5,804,519).

Riswick teaches a method for improving the strike through properties of hot melt adhesive compositions comprising the step of incorporating therein a nonionic fluorochemical surfactant in an amount of 0.1 to 10 parts by weight per 100 parts adhesive (Abstract). Further Riswick teaches hot melt adhesives that can be applied to substrates such as nonwoven articles and low-density polyolefin or other conventionally

employed substrates (Column 5, lines 19-24). The low-density polyolefin substrate of Riswick reads on the claimed thermoplastic polymer. The low-density polyolefin substrate coated with hot melt adhesive comprising a nonionic fluorochemical surfactant reads on the claimed hydrophilic article. Further the low-density polyolefin substrate of Riswick inherently has a first surface and a second surface. Note that polyolefins are hydrophobic. Additionally, Riswick teaches that nonwovens are used in variety of applications such as wipes, diapers, sanitary napkins etc. (Column 1, lines 13-20).

Riswick is silent as to teaching of a water contact angle of less than 90° and the migration of nonionic fluorochemical surfactant to the first surface of the polymer layer as claimed. However, it is reasonable to presume that the adhesive coated low-density polyolefin substrate of Riswick would necessarily have a water contact angle of less than 90° and the nonionic fluorochemical surfactant of Riswick would necessarily migrate to the first surface of the low-density polyolefin substrate, because like material has like property. The applicant is using a thermoplastic polymer layer with an adhesive layer bonded to the second surface of the thermoplastic polymer layer. Further the adhesive layer of the applicant comprises a nonionic fluorochemical surfactant. Riswick also teaches low-density polyolefin substrate with a layer of an adhesive applied to the said substrate. Further the adhesive of Riswick comprises a nonionic fluorochemical surfactant. Therefore, the adhesive coated low-density polyolefin substrate of Riswick would necessarily have the water contact angle of less than 90° and the nonionic fluorochemical surfactant in the adhesive would necessarily migrate to the second surface of the low-density polyolefin substrate of Riswick.

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9. Claims 1,2,5-7,10-15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koubek et al. (US 5,532,300) in view of Temperante et al. (US 5,804,625).

Regarding claim 1, since a nonionic fluorochemical surfactant migrates to a first surface of the polymeric layer, the FINAL product of the present invention is comprised of an adhesive and a polymeric layer containing a nonionic fluorochemical surfactant, ~~instead-~~

Koubek teaches novel water borne laminating adhesives, which are used in articles wherein a first nonwoven substrate is bonded to a second substrate using the laminating adhesive. Further, according to Koubek, the second substrate is a nonwoven substrate and is compositionally the same as or different from the first substrate (Column 7, lines 26-30). The second nonwoven substrate of Koubek is formed of a synthetic polymeric substrate such as polyester and polyolefin (Column 7, lines 41-42), which is inherently hydrophobic because like material has like property. The articles disclosed in the invention of Koubek are household wipes, disposable diapers, tampons, sanitary napkins etc. (Column 7, lines 64-66). According to Koubek, the article includes an absorbent core portion (Column 7, line 47) and the absorbent core portion may comprise a first nonwoven substrate, which is bonded to a second substrate with an adhesive (Column 7, lines 56-59). The second nonwoven polyolefin substrate of Koubek reads on the claimed thermoplastic polymer layer as claimed in claim 1, which is a fibrous polymeric layer. Additionally, Koubek teaches that it may be

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desirable to add anionic, amphoteric, or nonionic surfactants to the adhesive at conventional levels (Column 7, lines 13-16).

Koubek is silent as to teaching of a nonionic fluorochemical surfactant with formula as claimed in claims 5-7, surfactant is present in an amount sufficient to render said thermoplastic polymer layer hydrophilic as claimed in claim 10, adhesive layer comprising at least 3 wt% of nonionic fluorochemical surfactant, and the adhesive layer comprising 5 to 40 wt% of nonionic fluorochemical surfactant. However, Temperante teaches hydrophilic thermoplastic fibers, web, and fabrics made using nonionic type fluorochemical surfactants (Column 4, lines 21-24). Additionally, Temperante teaches articles such as diapers, feminine care products, sanitary napkins etc. made using thermoplastic fibers of their invention (Column 8, lines 33-46). Regarding claims 5-7, Temperante teaches a nonionic fluorochemical surfactant with the claimed formula at column 4, lines 36-67 and at column 5, lines 1-43. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the nonionic fluorochemical surfactant with the claimed formula of Temperante in the second nonwoven polyolefin substrate of Koubek, motivated by the desire to render the second nonwoven polyolefin substrate hydrophilic.

Regarding claims 10-12, at column 8, lines 13-15 Temperante teaches the blends of fluorochemical and non-fluorochemical surfactant may be added to the thermoplastic resin in concentration range of from about 0.2% to 5.0% by weight. Moreover, Temperante teaches that useful ratios of fluorochemical to non-fluorochemical surfactant are from 9:1 to 1:9 (Column 8, lines 31-33). Thus, the amount

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of fluorochemical surfactant in the thermoplastic resin of Temperante is about 4.5 % (using the said ratio of 9:1 and 5.0 wt% of surfactant blend), which meets the claim limitation of claims 10 and 11. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the amount of fluorochemical surfactant as disclosed by Temperante in the second nonwoven polyolefin substrate of Koubek, motivated by the desire to render the second nonwoven polyolefin substrate hydrophilic.

With respect to claim 12, as disclosed above, the amount of fluorochemical surfactant in the thermoplastic resin of Temperante is about 4.5 %. Thus, Temperante teaches claimed invention except the adhesive layer comprising 5 to 40 wt% of nonionic fluorochemical surfactant, however since the concentration is recognized as a result-effective variable, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical or provides unexpected results. Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the weight percent of the nonionic fluorochemical surfactant in the claim range and added to the second nonwoven polyolefin substrate of Koubek, motivated by the desire to render the second nonwoven polyolefin substrate hydrophilic. This is in line with *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955), which holds that the discovering the optimum or workable ranges involves only routine skill in the art.

With respect to the claim limitation of water contact angle of less than 90°, it is the examiner's position that since Koubek as modified by Temperante essentially teaches the same subject matter as the applicant, a water contact angle of less than 90° is necessarily present in the invention of Koubek as modified by Temperante.

10. Claims 1,2, 10, 13-15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koubek et al. (US 5,532,300) in view of Riswick et al. (US 5,804,519).

Koubek teaches novel water borne laminating adhesives, which are used in articles wherein a first nonwoven substrate is bonded to a second substrate using the laminating adhesive. Further, according to Koubek, the second substrate may be a nonwoven substrate and it is compositionally the same as or different from the first substrate (Column 7, lines 26-30). The second nonwoven substrate of Koubek may be a synthetic polymeric substrate such as polyester and polyolefin (Column 7, lines 41-42), which is inherently hydrophobic because like material has like property. The articles disclosed in the invention of Koubek are household wipes, disposable diapers, tampons, sanitary napkins etc. (Column 7, lines 64-66). According to Koubek, the article includes an absorbent core portion (Column 7, line 47) and the absorbent core portion may comprise a first nonwoven substrate, which is bonded to a second substrate with an adhesive (Column 7, lines 56-59). The second nonwoven polyolefin substrate of Koubek reads on the claimed thermoplastic polymer layer as claimed in claim 1, which is a fibrous polymeric layer. Additionally, Koubek teaches that it may be desirable to

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add anionic, amphoteric, or nonionic surfactants to the adhesive at conventional levels (Column 7, lines 13-16).

Regarding claims 13 and 14, the substrates of Koubek include polyesters and polyolefins such as polyethylene and polypropylene (Column 7, lines 42-44). With respect to claim 15, although Koubek does not explicitly teach polymeric layer is selected from homo, co, and terpolymers of ethylene and propylene, it is known in the art of diapers to use co-polymers of ethylene and propylene as evidenced by US 4,778,460 (Column 2, lines 65-66 and Column 5, lines 1-7).

Koubek is silent as to teaching of a nonionic fluorochemical surfactant. However, Riswick teaches a method for improving the strike through properties of hot melt adhesive compositions comprising the step of incorporating therein a nonionic fluorochemical surfactant (Abstract). Further Riswick teaches hot melt adhesives that can be applied to substrate such as nonwoven articles and low-density polyolefin or other conventionally employed substrates (Column 5, lines 19-24). Moreover, Riswick teaches that nonwovens are used in variety of applications such as wipes, diapers, sanitary napkins etc. (Column 1, lines 13-20). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the nonionic fluorochemical surfactant of Riswick in the adhesive of Koubek, motivated by the desire to provide a durable bond to the second substrate.

With respect to claim 30, although Koubek as modified by Riswick does not explicitly teach the T_g of the adhesive layer and thermoplastic polymer layer are at or below 25°C, it is the examiner's position that since the invention of Koubek as modified

by Riswick has the same utility (e.g. wipes), the low-density polyolefin substrate and the hot melt adhesive of Koubek as modified by Riswick would necessarily have the Tg at or below 25°C, in order to successfully practice the instantly claimed invention.

Koubek as modified by Riswick is silent as to teaching of a water contact angle of less than 90° and the migration of a nonionic fluorochemical surfactant to the first surface of the polymer layer as claimed. However, it is reasonable to presume that the laminating adhesive coated second substrate of Koubek as modified by Riswick necessarily has a water contact angle of less than 90° and the migration of a nonionic fluorochemical surfactant because like material has like property. The applicant is using a thermoplastic polymer layer with an adhesive layer bonded to the second surface of the thermoplastic polymer layer. Further the adhesive layer of the applicant comprises a nonionic fluorochemical surfactant. Koubek as modified by Riswick also teaches novel water borne laminating adhesives, which are used in articles wherein the nonwoven substrates are bonded to second substrates using the laminating adhesive. Further the laminating adhesive of Koubek as modified by Riswick comprises a nonionic fluorochemical surfactant. Thus, the laminating adhesive coated second substrate of Koubek as modified by Riswick necessarily has a water contact angle of less than 90° and the migration of a nonionic fluorochemical surfactant.

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11. Claims 1,16,19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xie et al. (US 6,503,620B1) in view of Riswick et al. (US 5,804,519).

Xie teaches multilayer pressure sensitive adhesive (PSA) labels. According to Xie, pressure sensitive adhesive products generally comprise a release liner coated with a low surface energy material such as silicone, a PSA layer disposed onto the liner, and a facestock adhesively bonded to the PSA layer (Column 1, lines 14-18). The facestock can be made from a sheet of plastic, which can be printed with the information or other indicia (Column 1, lines 24-27). The facestock of Xie is formed of polyolefins (Column 13, lines 27), which reads on the claimed thermoplastic polymer layer. Additionally, Xie teaches that the surfactants can be included in the adhesive (Column 13, lines 18-19). Although Xie does not explicitly teach that the ink used is an aqueous ink, it is the position of the examiner that in the absent of any unexpected results, a skilled artisan can suitably choose to use an aqueous ink because in the final product of Xie, the water will be evaporated and only the dried ink would remain.

Xie is silent as to teaching of a nonionic fluorochemical surfactant. However, Riswick teaches a method for improving the strike through properties of hot melt adhesive compositions comprising the step of incorporating therein a nonionic fluorochemical surfactant (Abstract). Further Riswick teaches hot melt adhesives that can be applied to substrate such as nonwoven articles and low-density polyolefin or other conventionally employed substrates (Column 5, lines 19-24). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made

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to add the nonionic fluorochemical surfactant of Riswick in the PSA of Xie, motivated by the desire to provide a durable bond between the facestock and the PSA.

Xie as modified by Riswick is silent as to teaching of a water contact angle of less than 90° and the migration of a nonionic fluorochemical surfactant to the first surface of the polymer layer as claimed. However, it is reasonable to presume that the multilayer PSA labels of Xie as modified by Riswick necessarily has a water contact angle of less than 90° and the migration of a nonionic fluorochemical surfactant as claimed because like material has like property. The applicant is using a thermoplastic polymer layer with an adhesive layer bonded to the second surface of the thermoplastic polymer layer. Further the adhesive layer of the applicant comprises a nonionic fluorochemical surfactant. Xie as modified by Riswick also teaches multilayer pressure sensitive adhesive (PSA) labels wherein a polyolefin based facestock is bonded to a PSA layer. Further the PSA of Xie as modified by Riswick comprises a nonionic fluorochemical surfactant. Thus, the multilayer PSA labels of Xie as modified by Riswick necessarily has a water contact angle of less than 90° and the migration of a nonionic fluorochemical surfactant.

12. Claims 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koubek et al. (US 5,532,300) in view of Riswick et al. (US 5,804,519) as applied to claim 1 above, and further in view of Johnston et al. (US 5,514,120).

The invention of Koubek is previously disclosed. Koubek is silent as to teaching of patterned thermoplastic polymer layer and the thermoplastic polymer layer

comprising a microstructure-bearing surface with a plurality of channels that facilitate the directional flow of a liquid disposed thereon. However, Johnston teaches liquid management members for absorbent articles such as meat tray liners, bed pads, baby diapers, sanitary napkins, and adult incontinent pads (Column 1, lines 10-14). The article of Johnston comprises an absorbent core disposed between a topsheet and a backsheet and further comprises a liquid management member that has a microstructure bearing hydrophilic surface with a plurality of channels. When an absorbent article is assembled, the hydrophilic surface is in contact with the absorbent core (Column 2, lines 30-41). The liquid management member is in a sheet form (Column 2, line 37) and promotes rapid directional spreading of liquids (Abstract). The liquid management member is formed using thermoplastic polymers (Column 4, lines 41-42). Thus a skilled artisan would have found it obvious to use the sheet of liquid management member as a second substrate in the absorbent core of the Koubek, motivated by the desire to promote the rapid directional spreading of liquids as taught by Johnston.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

APD



HAIVO
PRIMARY EXAMINER